

Abstract

Hyperspectral imaging calibration devices and methods for their use are described that generate images of three dimensional samples. A calibration device may assume the shape of a desired imaging sample such as a body part and may be sterile prior to placement. The calibration device may include openings or may be modified to expose a region of the sample during use. Spectral images, typically obtained at multiple wavelengths, are made of the calibration device. Algorithms are provided that utilize the spectral images of the calibration device to determine the effects of lighting conditions and sample shape on the sample image to form a calibrated image. Calibrated images produced by these devices and methods can provide information, including clinical data that are less sensitive to lighting and sample shape compared to alternative technologies.

15